ATTORNEY DOCKET No.: 09019.0058US
PATENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

QIN *et al.*

Serial No.: 09/280,791

Filed: March 26, 1999

For: **"SPUNLACED POLY(VINYL ALCOHOL) FABRICS"**

Group Art Unit: 1771

Examiner: Pratt, C.

RESPONSE TO OFFICE ACTION

BOX AMENDMENT
Commissioner for Patents
Washington, D.C. 20231

NEEDLE & ROSENBERG, P.C.
The Candler Building
127 Peachtree Street, N.E.
Atlanta, Georgia 30303-1811

August 12, 2002

Sir:

In response to the Office Action dated March 11, 2002, please amend the above-identified application as set forth below and consider the remarks that follow. Because a response was due on June 11, 2002, enclosed herewith is a request for a two-month extension of time to extend the due date to August 12, 2002 and the requisite extension fee of $400.00.

Claims 1-23, 26-34 and 37-39 remain pending in the application.

The only rejections raised by the Examiner in the Office Action of March 11, 2002 are based on 35 U.S.C. § 103(a) obviousness. Specifically, the Office Action rejects the claims as allegedly being obvious in view of both Honeycutt (U.S. Patent No. 5,207,837) and Yamamura

(U.S. Patent No. 5,882,780). Alternatively, the Office Action also alleges that certain claims are obvious over both Honeycutt and Yamamura in view of Chen (U.S. Patent No. 5,990,377).

I. Rejections over U.S. Patent No. 5,207,873

The Office Action has rejected independent Claims 34 and 38, and certain claims depending therefrom, under 35 U.S.C. § 103(a) as allegedly being obvious over U.S. Patent No. 5,207,873 (hereinafter "Honeycutt"). Applicants respectfully disagree with this rejection.

In the rejection, the Examiner initially recognizes that the disclosure of Honeycutt differs from the claims at least by the fact that Claims 34 and 38 of the instant application now expressly recite a web having an added minimum bursting strength and/or tensile strength property respectively. However, the Examiner then suggests the theory of inherency as a basis for rejection. Moreover, the Examiner further states that even if said bursting and tensile strength properties are not inherent in the web of Honeycutt, it nonetheless would have been obvious to arrive at the strength properties of Claims 34 and 38 of the instant application.

First, the Examiner's reliance on a theory of inherency is unquestionably misplaced. In order to rely upon the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied art. *Ex parte Levy,* 17 U.S.P.Q. 2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). Furthermore, the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert,* 9 F.3d 1531 (Fed. Cir. 1993). Here, there is simply no evidence in support of the Examiner's assertions.

In considering the claims in their entirety, Applicants would first point out that the Examiner is not just asserting that one aspect of the claimed invention is inherent but two different features are both inherent. Moreover, the Examiner is advancing this position despite the fact that the art of record is totally silent as to either feature.

Specifically, the Honeycutt patent differs from the claimed invention by the fact that it does not disclose the use of PVA having a degree of polymerization recited in the present claims. In the previous office action, the Examiner asserted that such a distinction would have been "inherent in" or "obvious" from Honeycutt.

Thus, when comparing Honeycutt to the claimed invention, not only does the Honeycutt patent not disclose the claimed PVA, but it also does not disclose a claimed property of the resulting web.

In rejecting the present claims, the Examiner merely hypothesizes that the PVA would have the claimed degree of polymerization **AND** that a hydro-entangled web having this degree of polymerization would inherently provides the bursting and tensile strength properties as recited in instant Claims 34 and 38 respectively.

Contrary to the Examiner's position, Honeycutt is silent as to degree of polymerization. Moreover, Honeycutt is silent with respect to bursting and tensile strengths. Moreover, Honeycutt merely lists spin bonding among a list of possible fabrication techniques. Therefore, irrespective of whether or not a the web **can**, in theory, be made by hydro-entangling and hydro-entangled web made from PVA can provide said properties, it cannot be discerned from the teaching of Honeycutt whether or not the webs disclosed therein provide the bursting and tensile strength properties recited in Claims 34 and 38 respectively. There is certainly no disclosure in Honeycutt that would support the conclusion that **BOTH** the claimed degree of polymerization of the PVA and the claimed bursting/tensile strength would **NECESSARILY** flow of the teachings of Honeycutt. Accordingly, the Examiner has failed to provide any basis in fact and/or technical reasoning beyond the stated hypothesis and, as such, a proper showing of inherency has not been made. Thus, the rejection must fail.

Second, the Examiner's reliance on obviousness is similarly misplaced. A *prima facie* case of obviousness requires that the art of record must teach, or at least suggest, the claimed invention as a whole. Moreover, there must also be adequate motivation and a reasonable

expectation of success to undertake the modification proposed in the rejection. Here, neither standard has been met.

As stated above, Claims 34 and 38 of the instant application each recite a web having a minimum bursting strength and minimum tensile strength property respectively, which web is produced from PVA having a particular degree of polymerization. Furthermore, each of Claims 34 and 38 further recite that heat fusion is substantially absent from the web. In contrast, Honeycutt is silent with respect to bursting and tensile strength properties and therefore fails to teach or suggest a web having the claimed strength properties.

Irrespective of this lack of direction, the Examiner still suggests that one of ordinary skill in the art would have been motivated in view of Honeycutt to arrive at a web having the bursting and tensile strength properties recited in Claims 34 and 38 respectively, by merely increasing the amount of entanglement imparted through hydro-entangling. To this end, the Examiner has mischaracterized the disclosure of Honeycutt. More specifically, the Examiner's rejection is based on the misconception that Honeycutt's web does not contain any additional binding means other than hydro-entangling. In contrast however, the disclosure of Honeycutt actually teaches a web that may also comprise thermally bonded fibers (See Col. 3, line 49).

Therefore, assuming arguendo that one of ordinary skill in the art would in fact have been motivated by the disclosure of Honeycutt to arrive at a web having the minimum tensile strength and minimum bursting strength recited in Claims 34 and 38 respectively, there still would be no motivation to achieve a web having said properties through hydro-entangling alone. Rather, Honeycutt's direction to use thermal bonding in addition to hydro-entangling actually teaches away from a web according to the instant Claims, wherein heat fusion is substantially absent.

As such, the disclosure of Honeycutt does not render Claims 34 and 38, and those claims depending therefrom, obvious and Applicants respectfully request that this rejection be withdrawn.

II. Rejections over U.S. Patent No. 5,882,780

In a second rejection, the Office Action has again rejected independent Claims 34 and 38, and certain claims depending therefrom, under 35 U.S.C. § 103(a) as allegedly being obvious over U.S. Patent No. 5,882,780 (hereinafter "Yamamura"). In this rejection, the Examiner again advances an "inherent or obvious argument" and once again this argument is improper.

First, the Examiner's continued reliance on a theory of inherency is once again misplaced. As stated above, in order to rely upon the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied art. *Ex parte Levy,* 17 U.S.P.Q. 2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). Furthermore, the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert,* 9 F.3d 1531 (Fed. Cir. 1993). Here, there is simply no evidence in support of the Examiner's assertions.

In considering the claims in their entirety, Applicants would again point out that the Examiner is not just asserting that one aspect of the claimed invention is inherent but two different features are both inherent. Moreover, the Examiner is advancing this position despite the fact that the art of record is totally silent as to either feature.

Specifically, the Yamamura patent differs from the claimed invention by the fact that it does not disclose the use of PVA having a degree of polymerization recited in the present claims. In the previous office action, the Examiner asserted that such a distinction would have been "inherent in" or "obvious" from Yamamura. Thus, when comparing Yamamura to the claimed invention, not only does the Yamamura patent not disclose the claimed PVA, but it also does not disclose a claimed property of the resulting web.

In rejecting the present claims, the Examiner merely hypothesizes that the PVA would have the claimed degree of polymerization **AND** that a hydro-entangled web having this degree of polymerization would inherently provide the bursting and tensile strength properties as recited in instant Claims 34 and 38 respectively.

Contrary to the Examiner's position, Yamamura is silent as to degree of polymerization. Furthermore, Yamamura is silent with respect to bursting and tensile strengths. Therefore, irrespective of whether or not a web can, in theory, be made by hydro-entangling and that a hydro-entangled web made from PVA **can** provide said properties, it cannot be discerned from the teaching of Yamamura whether or not the webs disclosed therein provide the bursting and tensile strength properties recited in Claims 34 and 38 respectively. There is certainly no disclosure in Yamamura that would support the conclusion that **BOTH** the claimed degree of polymerization of the PVA and the claimed bursting/tensile strength would **NECESSARILY** flow from the teachings of Yamamura. Accordingly, the Examiner has failed to provide any basis in fact and/or technical reasoning beyond the stated hypothesis and, as such, a proper showing of inherency has not been made. Thus, the rejection must fail.

Second, the Examiner's continued reliance on obviousness is also similarly misplaced. As previously mentioned, a *prima facie* case of obviousness requires that the art of record must teach, or at least suggest, the claimed invention as a whole. Moreover, there must also be adequate motivation and a reasonable expectation of success to undertake the modification proposed in the rejection. Here, neither standard has been met.

As stated above, Claims 34 and 38 of the instant application each recite a web having a minimum bursting strength and minimum tensile strength property respectively, which web is produced from PVA having a particular degree of polymerization. In contrast, Yamamura is silent with respect to bursting and tensile strength properties and therefore fails to teach or suggest a web having the claimed strength properties.

Furthermore, Claims 34 and 38 of the instant application recite a spun-laced web comprising a plurality of polyvinyl alcohol fibers. In contrast, the disclosure of Yamamura is directed to a **polyester web**. Although Yamamura admittedly discloses the optional use of a polyvinyl alcohol binder fiber during the preparation of said polyester webs, the polyvinyl alcohol binder fiber is used in a **deminimus** amount, if at all. See col. 9, lines 38-42. Moreover, in the event that a polyvinyl alcohol binder fiber is used to prepare the polyester web of

Yamamura, said polyvinyl alcohol binder fibers are completely removed from the web, so as to provide a polyester web **free from any polyvinyl alcohol fibers** See, col. 9, lines 42- 46.

Therefore, assuming arguendo, that one of ordinary skill in the art would in fact have been motivated by the disclosure of Yamamura to arrive at a web having the minimum tensile strength and minimum bursting strength recited in Claims 34 and 38 respectively, there still would be no motivation to achieve a web having said properties that is comprised of polyvinyl alcohol. Rather, Yamamura's direction to completely remove any polyvinyl alcohol fibers actually teaches away from a spun-laced web comprising a plurality of polyvinyl alcohol fibers. As such, the disclosure of Yamamura does not render Claims 34 and 38, and those claims depending therefrom, obvious and Applicants respectfully request that this rejection should be withdrawn.

III. Rejections over U.S. Patent No. 5,990,377

Finally, the Office Action has also rejected claims 3, 8, 21-23, and 26-33 under 35 U.S.C. § 103(a) as allegedly being obvious in light of both Honeycutt and Yamamura in view U.S. Patent No. 5,990,377 (hereinafter "Chen"). For reasons set forth below, Applicants respectfully disagree with this rejection.

Initially, the examiner asserts that this rejection was allegedly "untraversed." This is simply not the case. As discussed in the last full paragraph on page 8 of the response filed September 18, 2001, Chen, as was the case with Honeycutt and Yamamura, is also silent as to the burst and the tensile strength properties recited in the present claims. Thus, Applicants pointed out that the rejection was improper.

Moreover, as discussed above, Claims 34 and 38 of the instant application are in fact unobvious in view of both Honeycutt and Yamamura, alone or in combination. Since Chen does not overcome **any** of the deficiencies of Honeycutt and Yamamura, the mere inclusion of Chen does not alter the improper nature of the outstanding rejections.

In other words, assuming arguendo that one of ordinary skill in the art would seek to combine the disclosures of either Honeycutt or Yamamura and Chen, one would still fail to arrive at the claimed invention. Therefore, the hypothetical combinations of Honeycutt in view of Chen or, alternatively, Yamamura in view of Chen, are improper and do not render claim 3, 8, 21-23, and 26-33 obvious under 35 U.S.C. §103. Accordingly, this rejection should be withdrawn.

CONCLUSION

In view of the Remarks set out above, it is respectfully asserted that the rejections set forth in the Office Action of March 11, 2002 have been overcome and that the application is in condition for allowance. Therefore, Applicant respectfully seeks notification of same.

A credit card payment form in the amount of $400.00 is attached for the Two-month extension of time. This amount is believed to be correct; however, the Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 14-0629.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Box Amendment, Commissioner for Patents, Washington, D.C. 20231, on the date below.

William R. Johnson — 8.1.02 Date

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